



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/632,391

07/31/2003

Sammie J. Glorioso

APC-PT290.2US

2917

3624 7590 03/01/2007
VOLPE AND KOENIG, P.C.
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

YAO, SAMCHUAN CUA

ART UNIT

PAPER NUMBER

1733

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
|--|-----------|---------------|

3 MONTHS

03/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/632,391 | | GLORIOSO, SAMMIE J. | |
| | Examiner | | Art Unit | |
| | Sam Chuan C. Yao | | 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 15 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 15 and 28-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02-02-07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 14-15 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson (US 4,602,466) in view of Glorioso et al (US RE37,095).

With respect to claims 1-4, 6-9, and 15, Larson discloses a continuous process for manufacturing foam building panels, the process comprising the following sequence of steps, sequentially placing 1st facing discrete boards such as plywoods or gypsum boards onto a conveying means using a conventional transfer mechanism; providing a pair of stiffening bars onto lateral side-ends portion of each of the 1st boards; depositing a catalyzed foamable composition such as a catalyzed foamable urethane onto each of the 1st boards; sequentially applying 2nd facing discrete boards such as plywoods or gypsum boards onto each of the foamable composition covered boards; heat curing the foamable composition in-between the two facing boards; and then cutting the cured board to a desired dimension (col. 1 lines 6-12; col. 2 lines 23-68; col. 4 lines 4-68; col. 5 lines 29-55; figures 1-2).

Larson differs from the above claims in that, Larson does not teach using a multi-barrel extruder system for mixing and applying a foamable composition.

Art Unit: 1733

However, such would have been obvious in the art, because Glorioso et al discloses incorporating filler particles such as carbon black to enhance an insulating characteristic of a finished foam and suggests applying a foamable composition comprising high level of the filler particles between lining papers using a multi-barrel extruder in order to provide "an improved method for making polymer foams containing filler particles" (col. 2 lines 10-22; col. 3 lines 9-16; col. 4 lines 51-57; figures 1-4):

With respect to claims 5 and 10, the recited thickness is art recognized thickness for various conventional board materials. Additionally, one in the art would have determined a suitable board thickness for desired end characteristics of a finished foam building panel and would have determined a workable production rate. For these reasons, these claims would have been obvious in the art.

With respect to claim 11, the limitation in this claim would have been obvious in the art as such is an art recognized way of blending a catalyst to a foamable composition in order to prevent premature curing of the foamable material.

With respect to claim 12, a preference on whether to sequentially feed 1st boards onto a conveying means such that each of them are contiguous or equally spaced from each other is taken to be well within the purview of choice in the art. None, but only the same desired result of forming foam building panels would have been achieved. If it is desired to maintain the sequentially deposited 1st boards equally spaced from each other, a convenient and yet effective way to

accomplish to provide spacers or buttresses on a conveyor belt. For this reason, this claim would have been obvious in the art.

With respect to claim 14, while explicitly stated, the heat-cured board must inherently be cooled naturally in a section of conveying means through exposure to an ambient condition.

With respect to claims 28-31, see column 4 line 51 to col. 5 line 37 and figures 1-2 of the Glorioso et al patent.

3. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson (US 4,602,466) in view of Jones (US 4,043,719) and optionally further in view of (Savoy (US 5,194,323) or Porter (US 2002/0136888 A1).

The discussions of the Larson patent set forth in numbered paragraph 2 are incorporated herein.

Note: claims 32-33 as presently recited do not preclude positively incorporating a pair of side stiffeners in forming a foamed sandwich board. Additionally, claims 32-34 also do not preclude positively incorporating a grid in forming a foamed sandwich board.

While Larson also teaches an embodiment where "no side stiffener bars" are used (col. 7 lines 25-44) and also teaches using a pair of side guides to create an off-set arrangement (col. 7 lines 25-65; figure 7), it is unclear whether the side guides are part of a conveying system. However, such would have been obvious in the art as such is an art recognized effective way for making continuously a sandwiched board by applying a foamable composition via a single nozzle

between a pair of facing sheets at a desired thickness and width as exemplified in the teachings of Jones (abstract; col. 1 lines 7-15; col. 3 line 49 to col. 4 line 18; figures 1-3). Alternatively, it would have been obvious in the art to use a conveying system having "limiting blocks" on its side end portions suggested by Jones in the process of Larson for making a sandwich panel illustrated in figure 10 in order to prevent a deposited foamable material from leaking out by forming a closed conveying system (col. 3 line 53 to col. 4 line 26; figures 1-3).

Optionally, it is well known in the art to form foam sandwiched panels in which no side stiffener is used as exemplified in the teachings of either Savoy or Porter. It would have been obvious in the art to apply the method of Larson using a conveying system of Jones for making foam sandwiched panels suggested by either Savoy or Porter in order to prevent a foamable material from leaking out while supporting facing sheet to a desired thickness.

Response to Arguments

4. Applicant's arguments with respect to claims 1 and 32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1733

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richard Crispino can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
10-24-06